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Chinchilla Raising



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CHINCHILLA RAISING

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The chinchilla is native to South America. In the early part of the twentieth century skins of this animal were shipped into the United States by the bale. Apparently trapping in the wild reduced the numbers so drastically that by 1920 the skins were bringing as much as \$100 apiece. Before the South American countries had passed laws prohibiting the exportation of live chinchillas, or their pelts, a United States mining engineer in Chile in 1923 shipped out 11 animals, which became the foundation stock for chinchilla farming in this country. Release was obtained for making additional shipments from South America. It is estimated that there are now 500,000 chinchillas distributed in the United States and the Territories of Alaska and Hawaii. These animals are being raised primarily for sale as breeding stock.

Stability in raising chinchillas will be attained only when a market has been established for the pelts. Just when that will be is problematical, but the various chinchilla breeders' associations are working toward this goal. Other livestock developments underwent a formative period. Through experimentation, breeders have developed fairly satisfactory methods of management in feeding, breeding, and housing.

Experimental work on chinchillas by the Federal Government has been too limited to serve as a complete source of information for raising these animals in captivity. The suggestions in this leaflet were obtained from successful breeders.

DESCRIPTION

The chinchilla is a small ground rodent somewhat resembling the common squirrel, but its body is rounder and not so long. The tail is not so long or so bushy as that of the squirrel. The long whiskers move constantly. Occasionally the animal makes a slight noise.

Chinchillas sleep during the day and play at night. Their hind legs are made for jumping or hopping and enable them to propel themselves with exceedingly quick movements. The forepaw is small, with four fingers and a thumb, and may be used as a hand for holding food and conveying it to the mouth.

The various species differ somewhat as to length and size of ear, length of tail, and general conformation and size of body. Individuals weigh from 13 to 16 ounces at 6 months and from 18 to 35 ounces at maturity. The female is slightly larger than the male. The fur of the most desirable animals is 1 to 1½ inches long and is very soft, fine, and silky. The surface color is grey with a deep blue grey underfur; the belly is white. The chinchilla has only a faint odor, the odor becoming more pronounced when the animal is frightened.

The most common type of chinchilla is the *Lanigera*. Its tail is about half as long as its body. A more recent importation is the *Brevicaudata*, a short-tailed type. This type is larger than the *Lanigera*, and has smaller ears. *Brevicaudatas* are generally considered to have denser fur.

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GETTING A START

Only good, thrifty animals of a prolific strain having the desired characteristics should be considered for foundation stock. Chinchillas identified by tattoo marks in the ears and by written statements as to ancestry, grading, and show winnings, if any, are preferable. Records will prevent misunderstandings. Breeding stock should be purchased from a reputable breeder.

The Department of Agriculture does not maintain a list of chinchilla breeders. For information on prices of animals and similar matters, write to the chinchilla breeders' associations. Chinchilla raising is a new fur farming enterprise and a breeder should keep himself informed by subscribing to chinchilla magazines or fur farming journals.

HOUSING

Many small groups of chinchillas are kept in basements of homes. These places, when kept dry and free from drafts, though well ventilated, usually prove satisfactory. Larger colonies are kept in buildings of various kinds, some air-conditioned and heated. Climate is a determining factor in the type of housing required. Chinchillas suffer in prolonged heat of 90° to 100° F., but apparently they are not affected by freezing weather except at littering time. About 70° is considered the ideal temperature, though colder weather is desirable for animals to be pelted. A certain amount of sunlight is also desirable, particularly for sanitary purposes. Chinchillas should be protected from disturbances by dogs and other animals and, of course, from theft.

PENS AND NEST BOXES

A large variety of pens and nest boxes have been used (fig. 1), some of them rather elaborate. The present trend is for simplification and accessibility. Small all-metal pens, or combination wood-and-wire pens similar to those for minks and rabbits, are becoming more popular. These pens are accessible to the caretaker from the alleyway. The wooden framework should be on the outside to keep the animals from gnawing it. Raised wire floors of hardware cloth having 2 or 3 meshes to the inch are commonly used. Some breeders report that hardware-cloth floors become contaminated and require a thorough cleaning at frequent intervals. Round- or oval-shaped pens are sometimes used. About 4 to 6 square feet of floor space per animal is considered adequate.

In hot climates, larger concrete-floored pens are preferred by some breeders. A covering of sand or shavings is spread over the floors. Platforms are frequently provided to give the animal a resting place and a means of exercise.

Though wire-floored nest boxes are being used, the preference seems to be for solid floors, some of which are hinged. Bedding of shavings or straw is used with this type. Nest boxes are usually 10 to 12 inches square and 15 or more inches deep and are provided with a lid. It is advisable to have the removable nest boxes attached to the outside of the pen to give the caretaker ready access to the animals without entering the pen.

Several companies make pens and other equipment for chinchillas.

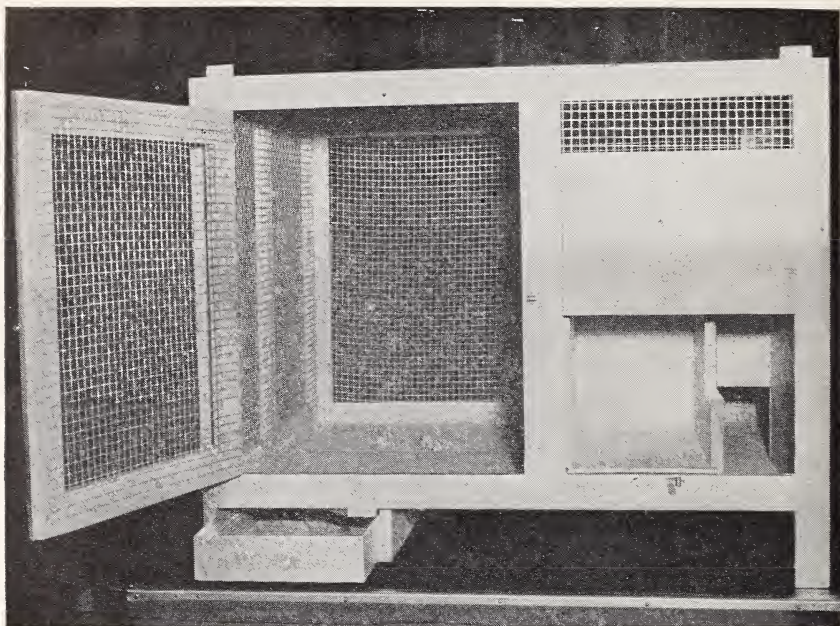


FIGURE 1.—Combination pen and nest box made of wood and hardware cloth.

Information on them can be obtained from trade journals or the associations.

OTHER EQUIPMENT

If hay is fed, a rack should be provided for it; it becomes contaminated if thrown on the floor. A dish, trough, or self-feeder of a type the animals cannot easily contaminate is needed in feeding grain or pellets. The animals may be watered from dishes or from inverted bottles like those used in a small-animal laboratory. In larger units an automatic watering system saves labor but must be protected from freezing in cold climates. A rectangular box about 12 by 15 inches or a round pan 6 inches deep in which the animals can roll and dust themselves is essential. All edges should be smooth. Metal cans or ratproof bins in which to store feed so rats and mice cannot get at it are necessary. Scales that weigh accurately to ounces or fractions of ounces may be used to keep the breeder informed on the progress he is making with his methods of breeding and feeding.

BREEDING

Chinchillas will breed when from 9 to 11 months old, depending largely upon the rapidity of their growth. Though adults mate more readily in late November and December and in late March, young have been produced in every month of the year. Pair mating is usually practiced and should be followed by the inexperienced breeder, as it is difficult for the beginner to determine when the female is ready to breed. Polygamous breeding has the advantages of distributing the influence of an exceptional male throughout the herd and of reducing the number of males needed.

It was formerly believed that chinchillas had to be pair-mated, but in recent years polygamous mating has been widely practiced. There are many problems, however, in polygamous mating that the beginner cannot handle. Pair mating is facilitated if the animals are placed in a large pen new to both.

In pair mating the male is left continuously with the female except when the litter comes. The female may fight the male at this time. A box-like retreat in the pen, where the male can take refuge, may solve the difficulty. If the male must be removed he can be returned a few hours after the litter arrives.

A "stopper" or "plug"—gelatinous and one-half to $1\frac{1}{2}$ inches long—in the pen indicates that breeding has taken place. A record should be made of the time the litter is to be expected: In the *Lanigera*, allow 111 days from breeding, in the *Brevicaudata*, 128 days. The female will usually rebreed within a few days after whelping in the spring and occasionally after producing a summer litter. From one to six young are produced in a litter, though six is unusual. A litter of eight has been reported. At present a general average of two young a year for all females kept is considered good production.

The young have their eyes open at birth, are fully covered with fur, and weigh from $1\frac{1}{2}$ to $2\frac{1}{4}$ ounces. At the weaning age of 2 months the animals weigh 8 to 9 ounces.

FEEDING

A recent survey showed that feeding the simplest and most regular diets gave the best results. Successful ranchers feed fresh pellets, manufactured by a reliable feed house, in conjunction with clean alfalfa or timothy hay, plus regular fresh, clean water, and a small amount of leafy greens such as fresh alfalfa, carrots, and beet tops. Feeding tidbits and elaborate supplemental feeds may upset the digestive system of chinchillas.

Whenever new types of feeds are to be used, introduce them slowly so that the animals may become gradually accustomed to them. Be sure the hay and greens are free of harmful sprays and of eggs of intestinal parasites, such as tapeworms and pin worms, which are frequently in the feces of domestic animals.

Chinchillas need a properly balanced diet. As a general guide, a ration containing approximately the following proportions is recommended: 15 to 20 percent of protein, 4 percent of fat, 20 percent of fiber, 45 percent of nitrogen-free extract, and 6 percent of minerals. Chinchillas may be fed the concentrated part of the ration in the evening, about 1 ounce, or a heaping tablespoonful, per animal. Some breeders supply dried branches of various fruit trees to satisfy the gnawing tendencies of the animals. However, some trees and shrubs, such as laurel and wild cherry, are poisonous.

The animals should not be overfed, but females suckling young need more than others. Feed chinchillas according to their individual requirements. Do not throw feed on the floor, but place it in containers where it cannot become easily contaminated. A plentiful supply of fresh water should be constantly available to the animals.

CARE AND MANAGEMENT

A breeder who knows his animals individually and keeps each one in good shape gets best results. This requires regular daily inspection

by an observant person. Frequent use of a pair of scales is a good way to check the condition of animals. If an animal is listless and the cause cannot be determined immediately, a veterinarian should be called. Sometimes the teeth do not contact properly and become unevenly worn; the animal may then be unable to eat properly. Filing the teeth gives temporary relief. A tendency toward this condition, which is known as malocclusion, may be inherited in chinchillas as it is in rabbits. Elimination of the strain that produces animals with this condition is advisable.

Premises and pens should be kept strictly sanitary. Chinchillas like to dust themselves. They should have a pan or box containing very fine sand and pulverized clay or gumbo earth. Fuller's earth is frequently used. The pans are placed in the pen for about an hour each morning.

When a litter is expected, many chinchilla raisers prefer to keep the entire room at a temperature of 70° to 75° F. Others may heat only a special maternity room in cold weather. Still others place about 3 inches of bedding in the nest box with a solid floor, in which case temperatures even slightly below freezing are not harmful. The individual heating elements formerly provided can be eliminated except in unheated rooms and when the nest boxes have wire floors. Newborn chinchillas must not be subjected to the slightest draft. Older chinchillas are content at temperatures only slightly above freezing.

During the first few days after they are born, chinchillas should be carefully observed to make sure they are well nourished. Examine the mother to see if her nipples are sore or have been bitten, and whether the young are taking all the milk.

Orphan young or those needing supplementary feeding can be fed warmed evaporated milk diluted with an equal amount of water using a medicine dropper. A 2-hour schedule should be maintained for the first few days, and the interval gradually lengthened, depending upon how well the young are progressing.

Good records are essential in any successful livestock enterprise. Keeping a simple yet comprehensive breeding record card for each female is a good system. The card should provide space for recording the time of mating, male number, date of littering, number of young, tattoo number, remarks, and possibly other information. Provide a place for listing the grading of each individual. A card for recording the breeding of the male is also desirable. Satisfactory breeding cards are sometimes obtainable from associations or supply houses.

Each chinchilla should have an identification number tattooed in an ear. It is best to do this shortly before weaning time. Tattooing instruments may be procured from small-animal supply houses.

Many chinchillas chew the fur on other animals, or their own. Fur chewing in rabbits can be largely eliminated by supplying roughage and raising the protein level of the rations. A few chinchillas on test for a year gave no indication that the type of rations being fed was a factor in this fur-chewing habit. The use of a combination underground and above-ground pen partially reduced fur chewing but did not eliminate it entirely. More research is necessary to solve this problem.

FUR CHARACTERISTICS

The fur of the chinchilla is very fine and silky. It is not a hard-wearing utility fur. Close examination shows that a fur tuft composed of 50 to 75 fine fibers and one coarser guard hair usually comes from one common pore which is partially subdivided by the epidermal cells around the guard hair. Less numerous coarser individual fibers come from some follicles. Chinchilla fur stands at right angles to the pelt, rather than at a slant as do most other furs. Chinchilla fur has a definite white banded effect that can best be seen by blowing it gently. The tips of the fibers are black, giving a veiled effect. The general appearance of the fur is grey with a deep blue-grey underfur. A mottled appearance is undesirable. Clearness of color is essential for good pelts. The color may vary from pale to dark. Medium dark seems to be most desirable at present. Chinchilla shows are excellent places to obtain current information on the best types of animal to breed.

Though at present practically all animals are being sold for breeding purposes, ultimately chinchilla raising will depend upon a satisfactory commercial market for the pelts. With increased production the prices for live animals may become lower and purchasers will insist on better animals. To establish pelt values, several thousand skins must be taken when prime and offered to the fur trade. Possibly the best matched bundles will be obtained by pooled or cooperative marketing. Better pelts undoubtedly will be produced as knowledge of selective mating progresses and management and feeding practices improve.

Chinchilla skins are more satisfactory for loose wraps, capes, jackets, neckpieces, and muffs than for fitted coats.

PELTING

Chinchilla fur becomes prime in December through March, although the time varies with the locality. Most animals born before July 1 will prime up the first winter. Complete primeness of a pelt may be determined by blowing into the fur on the back of the neck and along the spine. If the skin is prime, it will be a pale flesh color; if not, it will be blue.

Chinchillas may be killed for pelting by injecting nembital or strychnine with a hypodermic needle into or near the heart. The carcass should be cold before pelting is started. There are various clamps and devices for holding the feet of the carcass at the different stages of pelting. The first incision should be made at the point of the lower jaw. It should be long enough to permit the entrance of an old umbrella stay or other slotted device as a guide for the knife in slitting the skin straight down the belly. Care is necessary at all times to keep grease, oil, and blood from soiling the fur. A liberal use of fine hardwood sawdust helps. The fingers should be used whenever possible to separate the skin from the carcass. A knife should be used cautiously at all other places.

Some chinchilla raisers who have had experience with minks and foxes remove the pelt "cased," that is, they do not cut the skin down the belly but pull it from the rear over the head, as a glove is pulled off the hand. This method may be easier and protects the fur from the fat. All cased chinchilla skins, however, should be cut straight down the middle of the belly and nailed down to dry flat.

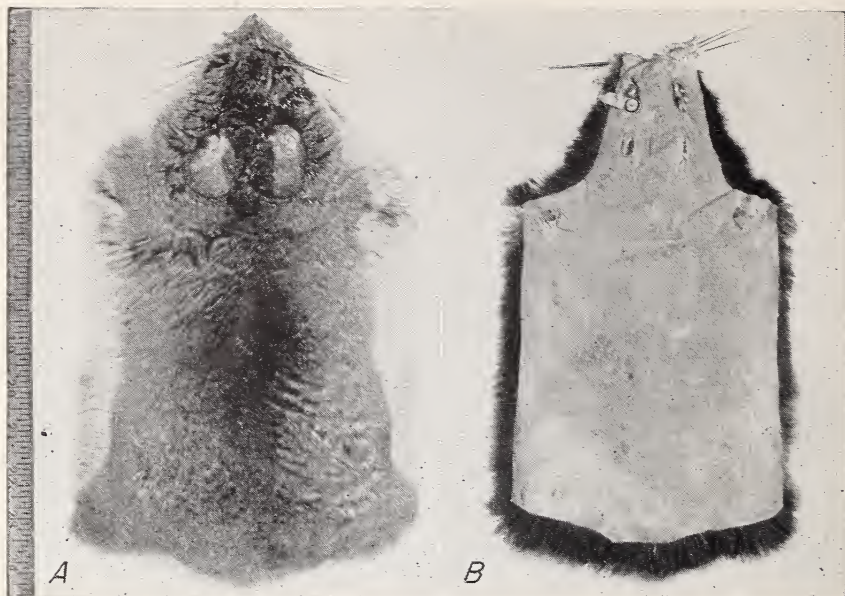


FIGURE 2.—A, A nicely shaped, well cleaned chinchilla skin with dense fur. B, The reverse side of the same pelt, which is prime, well cured, and ready for market.

The ears, eyelids, lips, and the skin of each leg above wrists and hocks should be left on the pelt. The skin of the legs is left protruding from the flesh side of the pelt. Care should be taken to keep the legs from touching the skin while the pelt is being dried. The pelt should be scraped gently yet firmly with the edge of a spoon or with a dull knife to remove excess fat. Sawdust absorbs the fat and makes the slippery pelt easier to handle. Sometimes only sawdust is used in removing excess fat from the pelt. The skin should be placed, fur side down, on a small flat smooth board. It should be pulled by the nose forward slightly to straighten the fur and then nailed down with $1\frac{1}{4}$ -inch wire brads, starting at the tip of the nose and working alternate sides gradually. For proper forming, the brads should be from three-fourths to 1 inch apart and one-sixteenth inch from the edge of the pelt. The pelt should be just nicely formed and not stretched, in order to obtain a full, dense fur. (Fig. 2.) The pelt should be set aside to dry in a well-ventilated insect-proof room, preferably at about 65° F. It should not be near a stove or in the sun. The pelt should be permanently marked with indelible pencil on the flesh side. Remove the brads carefully so that the pelt will not be torn. Any trimming should be done from the flesh side and with a sharp knife or razor blade, never with scissors. The edge showing the nail holes need not be trimmed. The fur may be cleaned with the same material the animal has used for dusting itself.

These are but general suggestions for pelting chinchillas. Improved methods will be devised as chinchilla production grows. It might be well to take instructions on pelting from experienced breeders.